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## Unit 3: Getting Ready

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## **Objectives**

At the end of this unit, the students should be able to:

- Describe the relationship between the hazard analysis and resource management.
  - Explain how using information from the hazard analysis can help resource managers prepare for incidents.
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## **Scope**

- Introduction and Unit Overview
    - Unit Objectives
  - Hazard Analysis and Resource Management
  - Using Hazard Analysis Data for Resource Management
  - Resource Management Planning Model
    - Step 1: Identify Associated Risks and Consequences
    - Step 2: Identify Probable Resource Needs
    - Step 3: Identify Potential Sources
    - Step 4: Confirm Activation and Procurement Procedures
    - Step 5: Request and Perform a Legal Review
    - Step 6: Develop and Maintain a Resource Catalog
    - Activity: Determining the Resource Requirements To Manage a Hazard
  - Planning for Interorganizational Issues
  - Interoperability
    - Activity: Interoperability Issues
  - Making Sure Everything Works
    - Training
    - Discussion-Based Exercises
    - Operations-Based Exercises
  - Summary and Transition
-

## Methodology

After introducing the unit objectives, the Instructor will begin this unit with a brief review of the information gained from hazard analyses. Then, he or she will explain how hazard analysis data can be used to determine the types of resources that may be required to respond to an incident involving each high-risk hazard. The Instructor will introduce a six-step model for using hazard analysis data to identify probable resource needs and gather all of the information required to acquire identified resources (including a legal review), and develop a comprehensive resource catalog. At the end of this topic, the students will complete an activity in which they select a high-risk hazard for their jurisdictions and use what they know about that hazard to plan probable resource needs and identify sources for the identified resources.

Next, the Instructor will briefly describe some of the key interorganizational issues that can interfere with effective resource management. At the end of this topic, the students will complete an activity in which they identify an interoperability issue and brainstorm several possible solutions to the issue. The Instructor will then briefly introduce interoperability issues and describe the steps that the NIMS Integration Center is taking to help resolve these issues, as well as steps that jurisdictions can take to help ensure interoperable equipment.

Finally, the Instructor will stress the need for training and a progressive exercise program to ensure that the Resource Annex works.

The Instructor will close the unit by summarizing the key learning points and transitioning to Unit 4.

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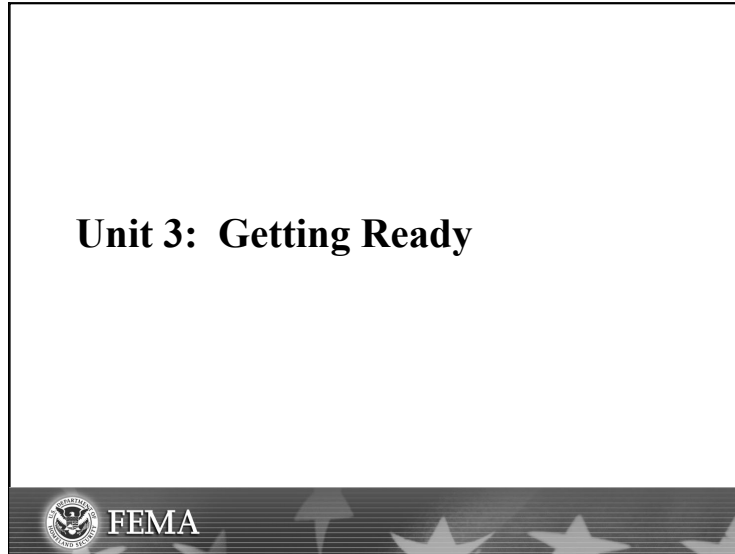
## Time Plan

A suggested time plan for this unit is shown below. More or less time may be required, based on the experience level of the group.

Topic	Time
Introduction and Unit Overview	5 minutes
Hazard Analysis and Resource Management	5 minutes
Using Hazard Analysis Data for Resource Management	5 minutes
Resource Management Planning Model	35 minutes
Activity: Determining the Resource Requirements To Manage a Hazard	40 minutes
Planning for Interorganizational Issues	5 minutes
Interoperability	10 minutes
Activity: Interoperability Issues	30 minutes
Making Sure Everything Works	10 minutes
Summary and Transition	5 minutes
<b>Total Time</b>	<b>2 hours 30 minutes</b>



Visual 3.1



**Visual Description:** Unit 3: Getting Ready

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### Instructor Notes

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Introduce this unit by telling the students that any jurisdiction's or agency's emergency management activities should be based on a thorough and realistic hazard analysis, which is documented in its Emergency Operations Plan (EOP). Explain that this unit will cover the relationship between the jurisdiction's hazard analysis and resource management planning, with a focus on using hazard analysis information to help plan resource needs.



Visual 3.2

### Unit 3 Objectives

- Describe the relationship between the hazard analysis and resource management.
- Explain how using information from the hazard analysis can help resource managers prepare for incidents.

Unit 3:  
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**Visual Description:** Unit 3 Objectives

### Instructor Notes

At the end of this unit, the students should be able to:

- Describe the relationship between the hazard analysis and resource management.
- Explain how using information from the hazard analysis can help resource managers prepare for incidents.

**Ask if anyone has any questions about what will be covered in this unit.**



Visual 3.3

### Hazard Analysis (1 of 2)

- Identify what might happen.
- Quantify the likelihood of occurrence.
- Assess how bad things might get.
- Assess how many people might be injured or killed.
- Assess how much damage is likely.



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**Visual Description:** Hazard Analysis (1 of 2)

### Instructor Notes

Introduce this topic by telling the students that a number of methodologies can be used for hazard analysis, but that all methodologies should:

- Identify possible kinds of disasters and their related risks or consequences (what might happen?).
- Quantify the likelihood of an occurrence of any given disaster (how likely is it to happen?).
- Assess the most likely magnitude of any given disaster (how bad is it likely to be?).
- Assess the percentage of the population that is at risk from any given disaster (how many people might be injured or killed?).
- Assess the severity of impact or likely consequences of any given disaster (how much damage is there likely to be?).



Visual 3.4

### Hazard Analysis (2 of 2)

- Provide a composite picture of:
  - The most likely types of disasters.
  - Their impact on the population.
  - Their likelihood of occurrence.
- Provide the foundation for decisionmaking.



Unit 3:  
Getting Ready

**Visual Description:** Hazard Analysis (2 of 2)

### Instructor Notes

Continue by telling the students that the hazard analysis will result in a picture of:

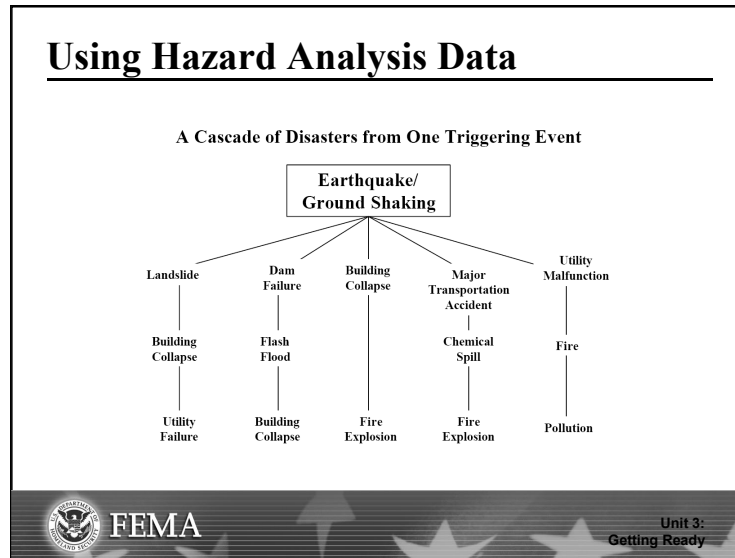
- The most likely disasters.
- Their potential impact on the population.
- Their likelihood of occurrence.

The jurisdiction's hazard analysis will provide the foundation for a range of decisionmaking—from policy decisions related to mitigation and preparedness measures, to practical measures, such as what kinds of supplies to warehouse and where to store them.





## Visual 3.5



**Visual Description:** Using Hazard Analysis Data

### Instructor Notes

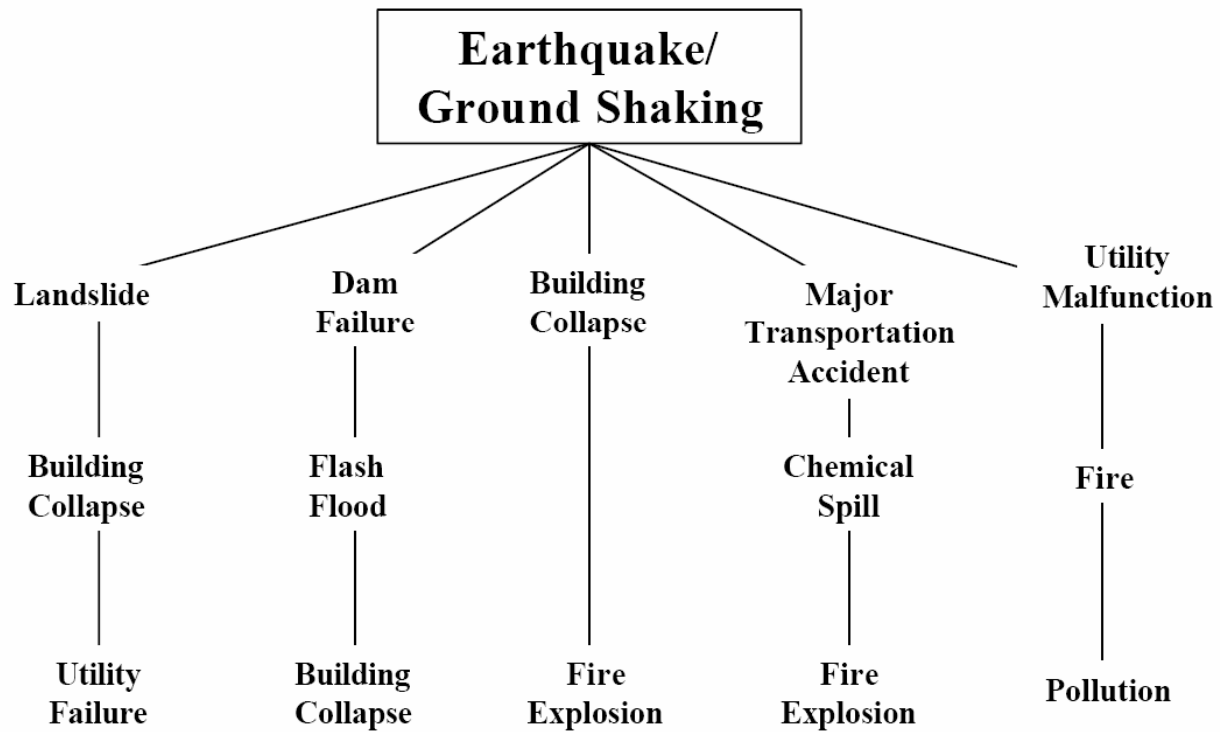
A critical factor in preparedness for resource mobilization and distribution is an understanding of how the hazards that are likely to occur in the community will affect response operations. The hazard/vulnerability analysis is essential for establishing the likelihood of occurrence of certain hazards in the community. It is usually included as part of the local EOP.

Hazards are defined as conditions or situations that have the potential for causing harm to people or property. Hazards do not occur alone; rather, each hazard causes a cascading effect in which other events emanating from the first hazard can also become hazards.

In the diagram on the slide, you can see the cascading effect of an earthquake. The events that result from the earthquake can escalate into a demand for resources. Each hazard will precipitate some predictable resource needs as well as other needs, which may be unique to the situation.

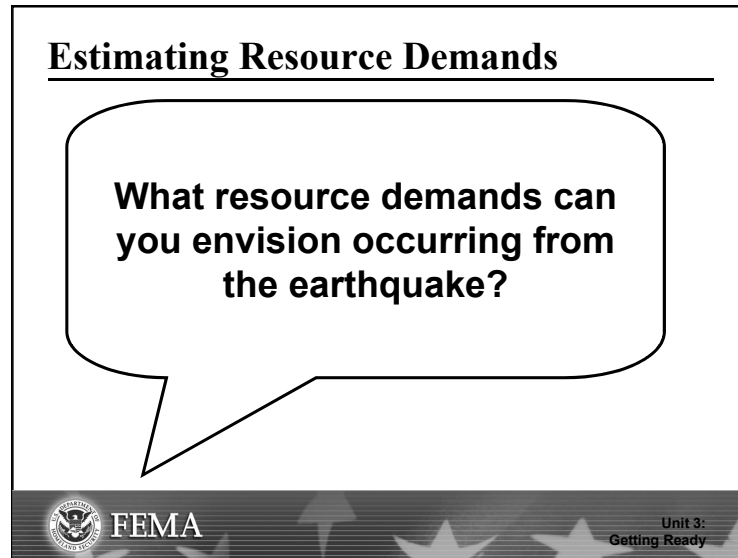
Because preparedness factors overlap for varying types of emergencies, being fully alert to one type of emergency increases a community's level of readiness for all types of emergencies (i.e., all-hazard preparedness). Applying all-hazard preparedness at the local level greatly expands the meaning and purpose of emergency management in the community; in fact, it enhances a community's preparedness to manage any type of emergency.

## A Cascade of Disasters from One Triggering Event





Visual 3.6



**Visual Description:** Estimating Resource Demands

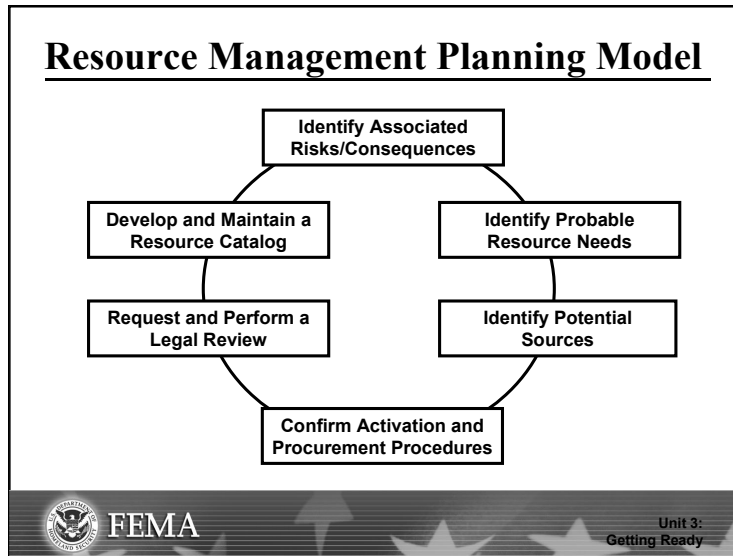
### Instructor Notes

Ask the students what resource demands they can envision occurring from the earthquake. Record their responses on easel and paper.

Spend no more than 2 to 3 minutes on this exercise. It is just a warmup activity for a longer exercise later in this unit.



Visual 3.7



**Visual Description:** Resource Management Planning Model

### Instructor Notes

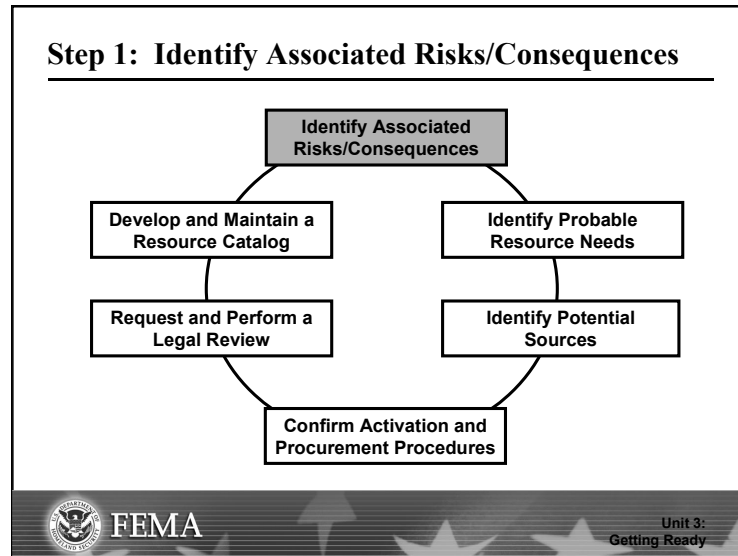
Tell the group that the recommended model for resource management planning divides the process into six steps:

1. Identify associated risks and consequences.
2. Identify probable resource needs.
3. Identify potential sources.
4. Confirm activation and procurement procedures.
5. Request and perform a legal review.
6. Develop and maintain a resource catalog.

Each step in the model will be covered in this unit.



Visual 3.8



**Visual Description:** Step 1: Identify Associated Risks and Consequences

### Instructor Notes

Tell the group that one of the first activities that should be accomplished when determining resource needs is to consider thoroughly the related risks and consequences of a specific disaster scenario. Most disasters spawn a variety of cascading events or related emergencies.

For example, an earthquake may cause:

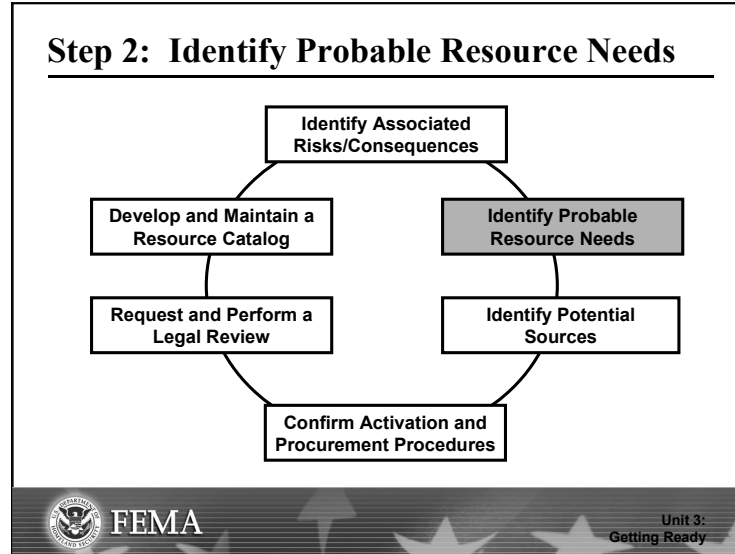
- Building and bridge collapses.
- Hazardous materials spills.
- Utility outages.

A thorough analysis of the risks and associated consequences will provide the baseline information needed for resource management planning.

Emphasize to the students that the hazard not only drives the kind/type of resources needed, but may present unique challenges to resource procurement. For example, earthquakes may damage roads, bridges, airports, and other infrastructure close to the disaster area, making resource delivery difficult. Hazmat incidents may present delivery issues because of limited approach routes, and decontamination issues as resources are demobilized and returned to service. Chemical and biological incidents may present shelf-life and refrigeration issues.



Visual 3.9



**Visual Description:** Step 2: Identify Probable Resource Needs

### Instructor Notes

Tell the students that the next step is to identify the probable resource requirements for managing each high-risk hazard, and its associated risks and consequences. Note that some resources will be specific to only one risk or consequence; others may be needed by all.

For example, following a hurricane, urban search and rescue resources would likely be needed only for building collapses, but resources associated with traffic control would be needed to assist with debris removal, security, and damage to bridges and roads.

Suggest that the students review case histories or interview managers of similar disasters when researching infrequent or unfamiliar disasters. Emphasize that, sometimes, needed resources are not immediately apparent.

For example, incident managers in Oklahoma City had not considered the need to dispose of large quantities of biohazardous waste prior to the bombing of the Alfred P. Murrah Building. Another frequently overlooked or underestimated category is the needs associated with ethnic groupings, such as special dietary requirements or separate shelters.



Visual 3.10

### General Resource Groupings

- Personnel
- Facilities
- Equipment
- Vehicles
- Teams
- Aircraft
- Supplies



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**Visual Description:** General Resource Groupings

### Instructor Notes

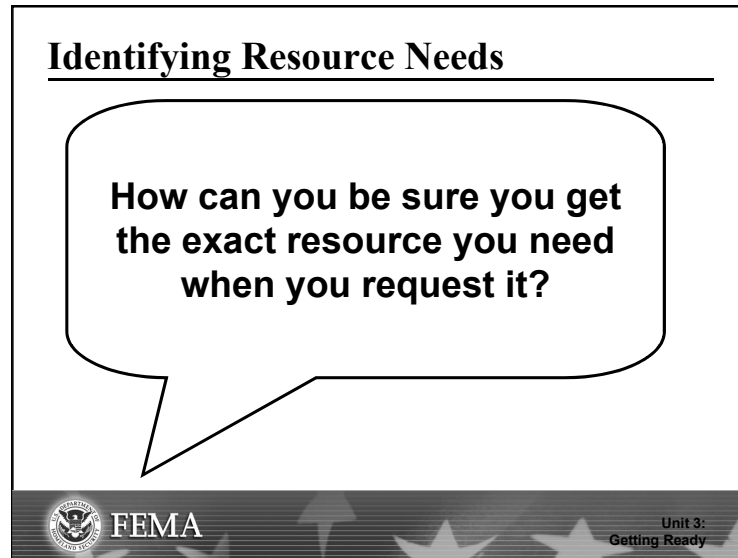
Continue this topic by telling the students that the resources they will identify fall into seven general groupings:

- Personnel: Includes ICS “overhead” or management staff, technical specialists, EOC staff, etc.
- Facilities: Includes office space, shelters, warehouses, etc.
- Equipment (with or without the personnel needed to operate it): For example, dump trucks may be requested with or without operators. Fire engines are usually requested with firefighters.
- Vehicles: Includes automobiles, buses, etc.
- Teams: Groups of specially trained and equipped personnel, including needed equipment and supplies.
- Aircraft: Includes surveillance platforms, medevac, or cargo configuration.
- Supplies: Supplies are the largest and most difficult category to define. It is impossible to develop and maintain complete lists. A more efficient way to plan is to develop and maintain a current list of supplies with comprehensive inventories.

Tell the students that they may find it useful to use these groupings to focus their resource brainstorming activities, or they may wish to group resources after they have compiled a complete list.



Visual 3.11



**Visual Description:** Identifying Resource Needs

### Instructor Notes

Ask the group:

**How can you be sure you get the exact resource you need when you request it?**

Allow the group time to respond. If necessary, remind the group that most emergency resources come in a variety of configurations, capacities, etc. Display the next visual as you expand on this discussion.





Visual 3.12

### NIMS National Typing Effort

- **Category**. The function for which a resource would be most useful
- **Kind**. Broad classes that characterize like resources (teams, personnel, equipment, etc.)
- **Components**. Critical parts or pieces that are included within a resource

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**Visual Description:** NIMS National Typing Effort

### Instructor Notes

Tell the group that thinking ahead about the appropriate configuration and capabilities of emergency resources can ensure that incidents receive the right resources for the job during an emergency. Point out that the NIMS Integration Center is directing a national resource typing effort to standardize resource characteristics.

Explain that in the national resource typing protocol, resources are organized by:

- **Category**: A category is the function for which a resource would be most useful (e.g., public works and engineering or firefighting).
- **Kind**: Kind refers to the broad classes that characterize like resources, such as teams, personnel, equipment, vehicles, aircraft, and supplies.
- **Components**: A resource may be comprised of several components. For example, the components of an urban search and rescue task force include:
  - Search team.
  - Medical team.
  - Heavy rescue team.
  - Logistics and management.



Visual 3.13

### National Resource Typing Protocol

- **Metrics.** Measurable standards that help describe resource capabilities
- **Type.** A description of the level of resource capability
- **Additional Information.** Information that is useful in making a decision to request a resource (e.g., limitations, required authorizations, etc.)

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**Visual Description:** National Resource Typing Protocol

#### Instructor Notes

Continue telling the students how resources are organized in the national resource typing protocol.

- **Metrics:** Metrics are measurable standards that are useful in describing a resource's capability. Metrics vary depending on the kind of resource being measured. For example, a metric associated with a dump truck is how many tons the bed can hold.
- **Type:** Type refers to the level of resource capability. Assigning the Type 1 label to a resource implies that it has a level of capability greater than that of a Type 2 resource of the same kind.

Point out that typing provides managers with additional information to aid in the selection and best use of resources.

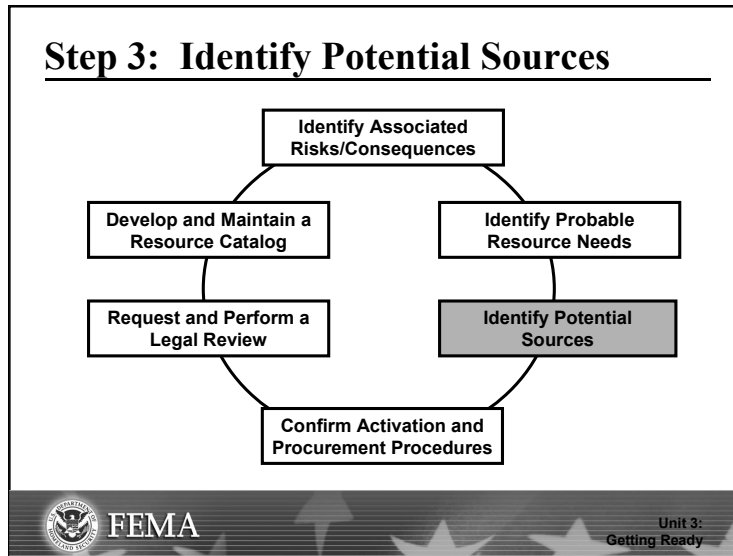
- **Additional information:** Additional information might include limitations, required authorizations, and applicable legislation or legal ramifications that affect activation or utilization of the resources.

Emphasize that organizing resources according to the national resource typing protocol makes the resource ordering and dispatch processes within jurisdictions, across jurisdictions, and between governmental and nongovernmental entities more efficient.

Stress that the NIMS resources typing effort is ongoing. Suggest that the students check the NIMS Integration Center (NIC) resource management page at:  
[http://www.fema.gov/emergency/nims/mutual\\_aid.shtm](http://www.fema.gov/emergency/nims/mutual_aid.shtm)



Visual 3.14



**Visual Description:** Step 3: Identify Potential Sources

### Instructor Notes

Tell the students that resources can come from a variety of sources, including:

- Within their agencies or jurisdictions.
- Mutual aid.
- Other levels of government.
- Volunteer organizations.
- Commercial sources.
- Donations.



Visual 3.15

### In-House Sourcing

- What kinds and types of resources are already owned by your agency?
- Are they suitable for emergency use?
- What kinds of supplies does your agency usually warehouse?
- What training and experience do your agency's personnel have?

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**Visual Description:** In-House Sourcing

### Instructor Notes

Tell the group that they should always consider in-house resources before looking outside. In-house resources typically:

- Are less expensive to use.
- Can be dispatched easier and more quickly.

Point out that during a disaster, each level of government is expected to exhaust its own resources before approaching the next level of government for assistance. Suggest that the students consider the following questions when determining whether to go outside their agencies or jurisdictions for a specific resource:

- What kinds and types of resources are already owned by my agency?
- Are they suitable for use in emergencies?
- What kinds of supplies does my agency usually warehouse?
- What training and experience does my agency's personnel have?

If the students don't know the answers to these questions, suggest that they conduct a resource survey of their agencies as part of the planning process.



Visual 3.16

### Mutual Aid

- Adjacent jurisdictions or agencies that share the same mission
- The next level of government
- NGOs with similar missions and resource needs



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**Visual Description:** Mutual Aid

### Instructor Notes

Tell the students that if their agency or jurisdiction does not have a specific resource, the next place to look is usually their mutual-aid partners.

- For governmental entities, mutual-aid resources can include adjacent jurisdictions or agencies that share the same mission, or the next level of government.
- For nongovernmental entities, mutual aid can also include organizations with similar missions and resource needs.
- In the private sector, sources of mutual aid can include businesses that use the same kinds of resources.

Remind the group that mutual-aid agreements or EMACs (at the State level) should be developed during the planning process.

**Note:** Mutual-aid agreements will be covered in more depth in Unit 4.



Visual 3.17

### Other Levels of Government

- Availability is not guaranteed.
- May have co-pay or other requirements.
- May not be available for 72 hours or longer.
- Must follow established request procedures.



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Getting Ready

**Visual Description:** Other Levels of Government

### Instructor Notes

Tell the students that public-sector emergency managers should have a good idea of:

- Resources available at all levels of government.
- Their capabilities and support needs.
- The response times for specific resources or resources from specific sources.

Remind the group that availability of a resource is not guaranteed. For example, members of the National Guard and military reserve units may not be available as disaster resources if they have been deployed elsewhere.

Point out that there may be co-pay or other requirements associated with needed resources.

Tell the group that a good rule of thumb is to assume that resources outside the disaster area (e.g., State and Federal resources) will take up to 72 hours to arrive.

Emphasize that all resource requests to other levels of government must follow the established request procedures.



Visual 3.18

## Volunteer Organizations

Determine during the planning process:

- What organizations are active in the area.
- The services they provide.
- How they can be accessed.

Whenever possible, include  
representatives of voluntary  
organizations on the planning team.



FEMA

Unit 3:  
Getting Ready

**Visual Description:** Volunteer Organizations

### Instructor Notes

Introduce this topic by telling the group that many volunteer nongovernmental organizations (NGOs) play major roles in emergency response. Commonly referred to as Volunteer Organizations Active in Disaster, or VOAD, the number and degree of formal organizations vary from State to State. The American Red Cross is the most high profile of the VOAD organizations, with its national, congressionally mandated mission to provide care to disaster victims.

Point out that knowing what volunteer agencies are active in their areas, what resources they can provide, and how to activate and incorporate these resources into the response is critical to resource planning. Suggest that the students include these organizations into their planning processes.

Note that some jurisdictions have VOAD Councils designed to coordinate with each other and with public-sector jurisdictions. These Councils can be extremely valuable, both in the planning and the activation processes, especially if resource requests can be forwarded to the Council for resolution, rather than having to "shop around" to individual members.



Visual 3.19

### Benefits of Including Volunteer Organizations

- Avoids “spontaneous volunteer” organizations.
- Helps organize spontaneous volunteers to avoid:
  - Loss of accountability.
  - Potential safety issues.
  - Public relations problems.
  - Loss of confidence in the response organization.
- Allows organizations to do what they do best!

Unit 3:  
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**Visual Description:** Benefits of Including Volunteer Organizations

### Instructor Notes

Continue by telling the students that VOAD organizations offer many benefits to the responding jurisdiction. In fact, failure to include key VOAD organizations in their planning and exercises will result in duplication of effort and/or resource shortfalls. Some may show up as “spontaneous volunteer organizations” and will not check in with either the IC or EOC. This will result in:

- Failure to integrate VOAD resources into formal response, leading to loss of accountability.
- Potential safety issues.
- Public relations problems.
- Loss of confidence in the jurisdiction's ability to respond to a disaster.

Most importantly, VOAD members specialize in providing specific services during emergency situations. Involving VOAD organizations throughout the planning process and during a response allows them to do what they (as opposed to government agencies) do best.

Make sure agreements with volunteer organizations clearly spell out required training, experience, and equipment, as well as liability and employment relationship to the jurisdiction.





Visual 3.20

### Commercial Sources

- Can provide resources that the jurisdiction does not have.
- Support the local economy.

Use standby contracts to guarantee resource availability and reduce cost.



FEMA

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**Visual Description:** Commercial Sources

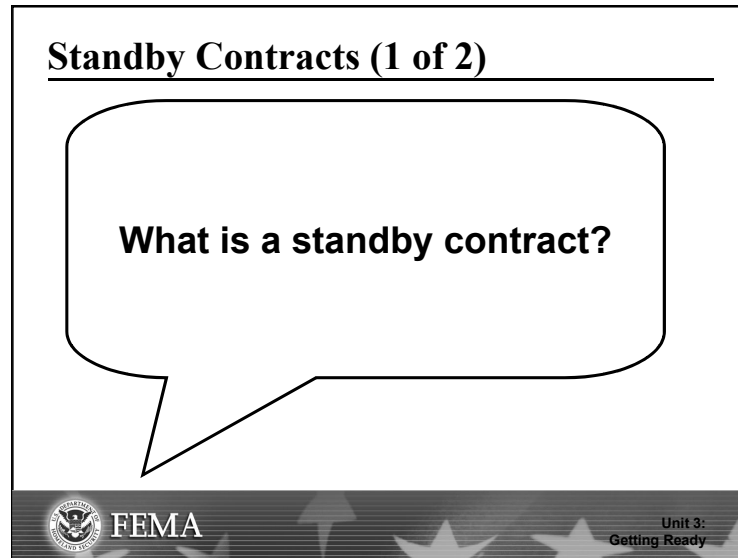
### Instructor Notes

Suggest that the students also consider resources from commercial sources to fill some emergency needs. Many supplies are most easily and cost-effectively procured from local commercial sources—and the use of commercial sources can support the local economy, which is often critical in the wake of a disaster. Many jurisdictions depend heavily on local contractors for heavy equipment and operators, and it makes more sense to buy pens and pencils from a local supplier than to request them from FEMA.

Emphasize the need to identify all costs associated with locally procured resources. Some costs, such as fuel, operators, or standby time, may not be readily apparent in a price quote. Point out that many jurisdictions use standby contracts as a cost-effective way of getting the emergency resources they need from commercial sources.



Visual 3.21



**Visual Description:** Standby Contracts (1 of 2)

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### Instructor Notes

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Ask the group:

**What is a standby contract?**

Allow the group time to respond. Summarize the responses by displaying the next visual.



Visual 3.22

### Standby Contracts (2 of 2)

**Standby contracts:**

- Are negotiated before an emergency.
- Can be activated, if necessary, following an emergency.
- Guarantee delivery of a specified quantity and quality of resource.
- Guarantee delivery at the price in effect the day before the emergency occurred.

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**Visual Description:** Standby Contracts (2 of 2)

### Instructor Notes

If not mentioned by the group, explain that standby contracts offer several large benefits to jurisdictions using them because they:

- Are negotiated before an emergency occurs so that a contract does not have to be executed during a response.
- Can be activated, if necessary, by authorized personnel following an emergency.
- Guarantee delivery of a specified quantity and quality (e.g., kind and type) of resource and within a specified timeframe.
- Guarantee delivery at the price in effect on the day before the emergency occurred.

Point out that many jurisdictions have found standby contracts to be extremely useful and a cost-effective way of accessing supplies, equipment, and personnel during emergency situations.



Visual 3.23

## Donations

### Specify:

- What goods and services will be accepted.
- How goods must be packed and shipped.
- How and where goods will be received and distributed.
- The conditions under which goods and services will be accepted.

Cash is best!



Unit 3:  
Getting Ready

**Visual Description:** Donations

## Instructor Notes

Tell the students that during disasters, private-sector sources frequently wish to contribute goods and services free or at a reduced cost. However, it is also important to have a procedure in place that clearly defines and documents:

- What goods and services will be accepted. Specifying what goods and services are acceptable will reduce “closet cleaning” and the labor and other costs associated with disposing of unwanted goods.
- How goods must be packed and shipped and how and where they will be received and distributed. Emergency personnel do not have time to sort donated goods before warehousing or distributing them. And they cannot handle receipt of the often huge quantities of donated goods if they don’t know the goods are coming or when they will arrive. Specifying the conditions for packing, shipping, and receipt will help donations management personnel operate much more efficiently.
- The conditions under which goods and services are being offered. Note that it is not unusual for jurisdictions to be billed at a later date for resources that were offered “free” in the initial response to an emergency. Making certain that the conditions for donation are clear helps ensure that donors are recognized for being good neighbors and that there are no misunderstandings later.

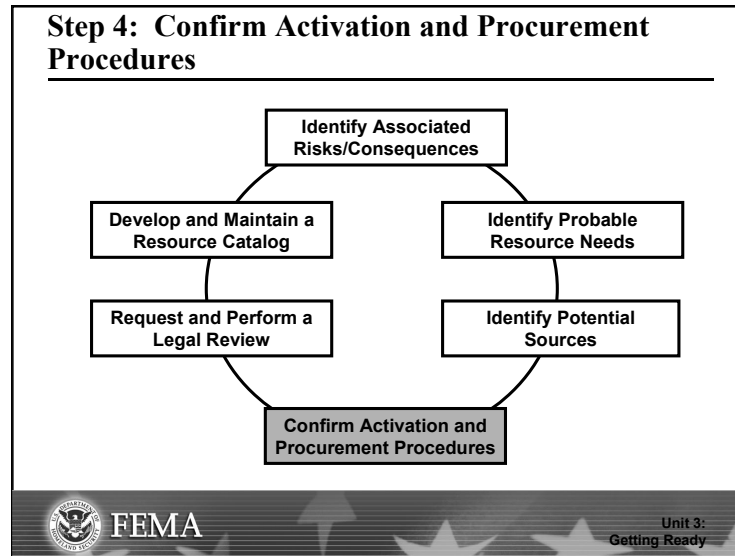
Point out that jurisdictions should develop and implement an effective Donations Management Annex to the EOP that structures receipt, warehousing, inventorying, distribution, and accounting for large-scale disasters.

Remind the group that cash is always the best donation, and suggest that they work with VOAD members and their Public Information Officers to get the word on donations to the public as soon as possible following a disaster.

**Note:** Unsolicited donations will be addressed later in this course.



Visual 3.24



**Visual Description:** Step 4: Confirm Activation and Procurement Procedures

### Instructor Notes

Tell the group that just knowing who owns a resource is only half the battle. Additional questions need to be answered:

- How can that resource be obtained in the middle of the night, on a weekend, or when the owner/supervisor is out of town? Are 24-7 access phone numbers and addresses available? While many administrative rules work fine during routine circumstances, they may not serve the organization well during an emergency.
- Will the jurisdiction have to pay for this resource? If so, what is the rate? Are there additional costs associated with emergency use or after-hours activation? This is an area in which standby contracts can be extremely useful.
- Has purchasing authority been delegated to the appropriate personnel in sufficient amounts to meet emergency needs? Most jurisdictions limit purchasing authority to specific people and specific limits. Again, while administrative rules addressing financial issues may work fine during routine operations, they may not serve the organization well in an after-hours emergency. Stories abound of responders forced to purchase supplies with personal credit cards because official fiscal support was not available.
- What emergency declarations or legal frameworks must be activated or invoked? Suggest that the students consult with their legal offices to determine requirements in their States.

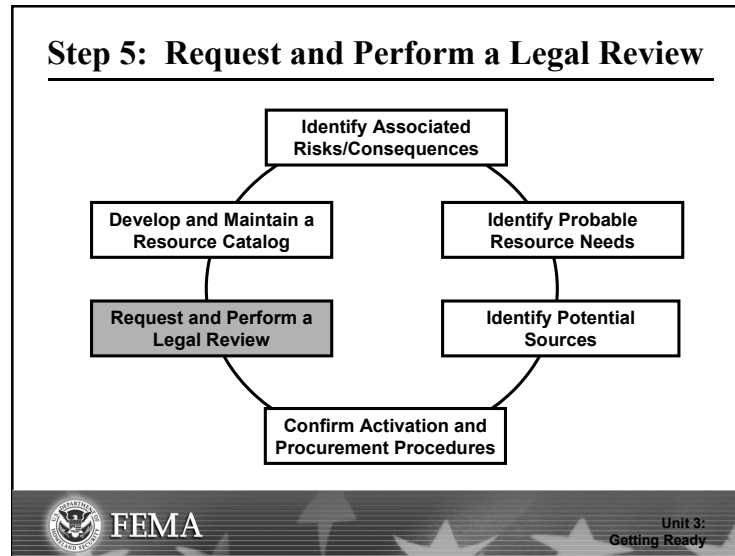
- How will the resource gain access to the incident scene? Planning efforts must consider the issues related to incident scene access. Convergence and self-dispatching represent a significant threat to scene safety and resource management. Planning should consider:
  - A method for identifying authorized personnel from other jurisdictions, volunteer organizations, or commercial vendors.
  - Procedures for clearing the incident scene of spectators, unauthorized volunteers, and victims.
  - Methods for securing the cleared scene and limiting access points.

To ensure that these issues are addressed adequately, ensure that the planning process includes:

- Determining who, at what level in each agency, has what purchasing authority.
- Ensuring that appropriate financial controls are in place and observed at all levels.
- Ensuring that appropriate training and refresher training on jurisdiction purchasing and documentation procedures is completed.



Visual 3.25



**Visual Description:** Step 5: Request and Perform a Legal Review

### Instructor Notes

Stress to the students that it is time well spent to have legal counsel review their organizations' legal foundations for resource management as well as the Resource Annex to the EOP. For example:

- It is an unfortunate fact of life that goods and services frequently make a major leap in price following a disaster. Many jurisdictions have put ordinances in place to prevent price gouging.
- In some jurisdictions, normal contracting procedures, such as the amount of time contracts must be advertised, can be suspended following a disaster.
- Some jurisdictions change the level of purchasing authority for specific individuals during an emergency. For example, what level of purchasing authority do Incident Commanders have? Department heads? Logistics Section Chiefs? Procurement Unit Leaders? Emergency Managers?
- Under what circumstances (if any) can personal property be commandeered?
- Are liability measures in place to protect both their jurisdictions and volunteers and their organizations? Liability laws vary widely from State to State.

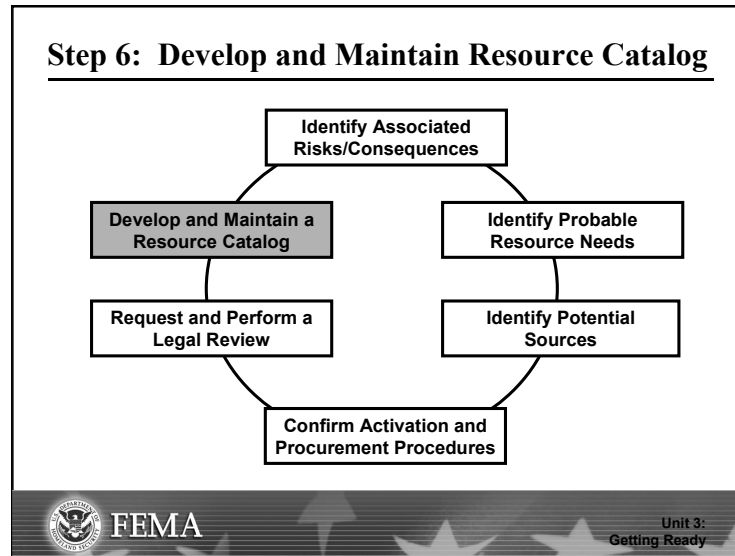


- Has a disaster contingency fund been established? If so, who can access it, and under what conditions?
- Are sufficient intergovernmental agreements in place to perform and receive mutual aid?

Legal counsel can provide up-to-date guidance and advice on all of these issues.



Visual 3.26



**Visual Description:** Step 6: Develop and Maintain a Resource Catalog

### Instructor Notes

Tell the students that after they have determined what they need, where they can find it, and how to procure it, the information needs to be organized, made accessible to those who need it, and maintained. Explain that most organizations develop their own versions of "the yellow pages," including:

- The type of resource.
- Its owner.
- Its location.
- Procedures for obtaining the resource.

Stress that resource accessibility is also an issue. The most detailed inventory in the world is useless if staff can't access it. Inventories should be available in different formats and stored at different locations. If the primary inventory is electronic, it is advisable to have paper copies available for key Logistics and Finance/Administration personnel, dispatchers, and EOC staff.

Tell the group that maintaining such catalogs is time-consuming work. It takes time and attention to detail to make sure all information is up to date, but there are few things more frustrating than discovering that a needed resource is not available when needed at 3 a.m. Most organizations update their resource lists on an annual or semiannual basis. Point out that there is software available that will e-mail contacts and ask for updates automatically.

Explain to the students that the activity on the next page will summarize this topic, and give them practice in determining resource requirements for a multihazard event.



Visual 3.27

**Activity: Determining the Resource Requirements To Manage a Hazard**

1. Select a hazard.
2. Use the Cascading Effects diagram to identify events resulting from the hazard.
3. Use the Equipment, Supplies, and Personnel Worksheets to identify resource requirements.
4. Be prepared to discuss your worksheets with the class.



You have 20 minutes to complete this activity.



Unit 3:  
Getting Ready

**Visual Description:** Activity: Determining the Resource Requirements To Manage a Hazard

**Instructor Notes**

**Instructions:** Follow the steps below to conduct this activity:

1. Direct the students to the activity on page 3-31 in the Student Manual.
2. Assemble the class into four to six groups of five participants each. Each group will select a hazard of its choice, identify the cascading effects of that hazard, and determine the likely resource requirements for responding to the hazard. To focus the activity, groups should define a specific population that the hazard would affect (i.e., how many people in a small, medium, or large jurisdiction). Where possible, groups should identify specific quantities of the required equipment, supplies, services, and personnel. They can use the worksheets provided to complete this exercise.

Note: One purpose of letting students choose their own hazard is to allow them to apply personal experience and expertise to the learning point being made. However, encourage all types of hazards to be considered, including natural (e.g., flood, hurricane, earthquake) or manmade/technological (e.g., hazmat, nuclear power plant accident, terrorism event). Don't let the groups do just natural hazard events.

3. Tell the group that they will have 25 minutes to complete this activity.
4. When all have finished, ask one of the groups to report out. Request that subsequent groups list only the effects and resource requirements specific to their hazard, rather than repeating items mentioned by earlier groups. Be sure to emphasize how the ability to accurately predict the escalating effects of a hazard helps to ensure that you have adequately planned for the resource demands resulting from the hazard.

5. Answer any questions that the students have before continuing.

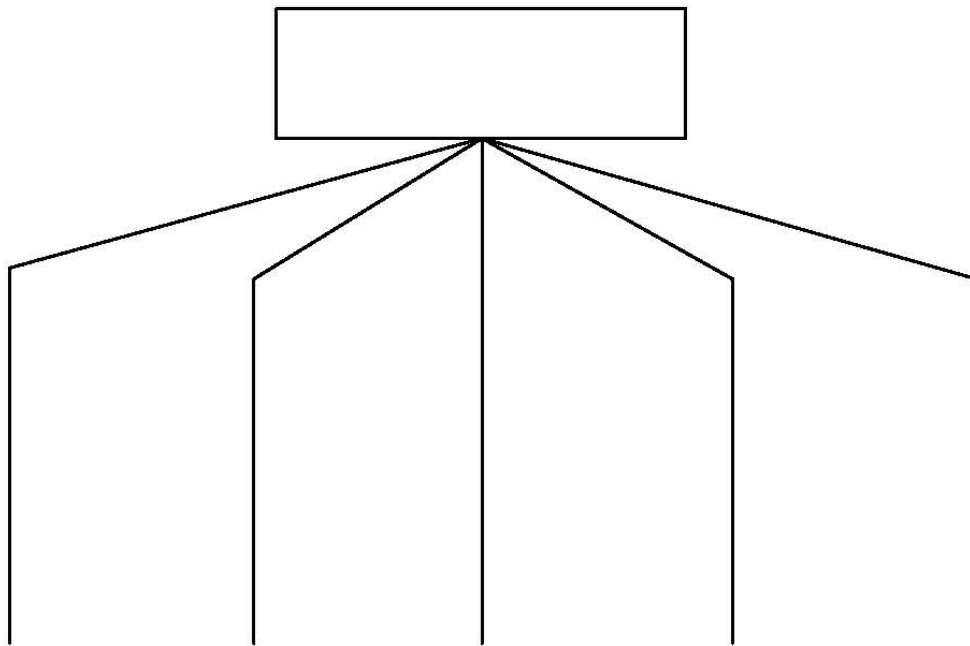
**Activity: Determining the Resource Requirements To Manage a Hazard****Student Manual  
Page 3-32**

**Instructions:** Select a hazard, and define a specific population that will be affected by the hazard (i.e., how many people in a small, medium, or large jurisdiction).

In the diagram below, identify the cascading effects of that hazard. Then, on the worksheets that follow, determine the likely resource requirements for responding to the hazard.

You will have 25 minutes to complete this activity.

## A Cascade of Disasters from One Triggering Event







## Resource Analysis Worksheet: Supplies

## RESOURCE REQUIREMENTS ANALYSIS BASED ON HAZARD/VULNERABILITY ANALYSIS

Type of Hazard	
Population Affected	
Likely Areas of Occurrence	

## SUPPLIES

[illegible]



## Resource Analysis Worksheet: Personnel

## RESOURCE REQUIREMENTS ANALYSIS BASED ON HAZARD/VULNERABILITY ANALYSIS

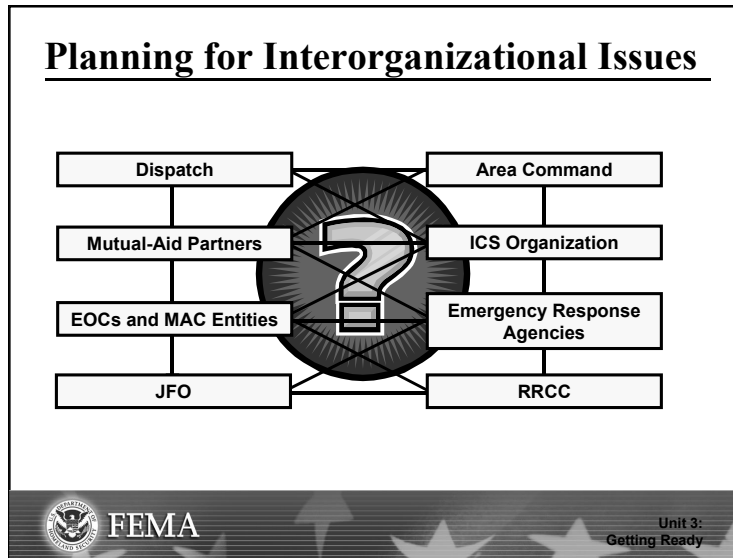
Type of Hazard	
Population Affected	
Likely Areas of Occurrence	

## PERSONNEL AND SERVICES

[illegible]



Visual 3.28



**Visual Description:** Planning for Interorganizational Issues

### Instructor Notes

Point out that it is critically important to think through the relationships between and among the various command and coordination entities that are likely to be activated during a disaster. Included in this analysis should be:

- ICS organization on incident.
- Dispatch organizations.
- Mutual-aid partners.
- Unified Command.
- Area Command.
- Emergency service districts or other special mission governmental entities.
- Local, county, regional and State EOCs.
- Multiagency Coordination (MAC) entities such as MAC Groups, VOAD Councils, State Emergency Boards, etc.
- FEMA Regional Response Coordination Centers (RRCCs).
- Joint Field Offices (JFOs).
- Joint Information Centers (JICs).



**Emphasize that a solution that works in one jurisdiction might be inappropriate (or illegal) in another.**

Also, explain that most NIMS command and coordination structures are activated only during disasters. Dispatch centers or offices and agency ordering points manage resources on a day-to-day basis. It is not safe to assume that unfamiliar resource management procedures and entities will integrate smoothly with normal administrative structures during the stress and uncertainty inherent in a disaster. It is important that planners consider carefully the relationships among these structures as they relate to resource management.



Visual 3.29

### **Interoperability: Key Points**

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- No jurisdiction has all of the resources that could be needed during a disaster.
- Interoperability ensures that resources can be moved and assigned across jurisdictional boundaries.
- Interoperable resources expand the resource pool and ensure an effective response.



FEMA

Unit 3:  
Getting Ready

**Visual Description:** Interoperability: Key Points

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#### **Instructor Notes:**

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Make the following key points about the importance of interoperability:

- No jurisdiction has all of the resources that could conceivably be needed during a disaster.
- Interoperability ensures that resources can be moved and assigned across jurisdictional boundaries.
- Interoperable resources expand the resource pool and ensure an effective response.



Visual 3.30

### Strategies To Ensure Interoperability

- Where national standards exist, adopt them.
- When possible:
  - Combine orders for standardized equipment.
  - Place bulk orders to ensure best price and interoperability.

Unit 3:  
Getting Ready

**Visual Description:** Strategies To Ensure Interoperability

### Instructor Notes

Continue by telling the group that there are many examples of incidents in which the lack of interoperability affected the outcome of the response. Nonstandard equipment severely hampers mutual-aid assistance. Strategies to ensure interoperability include:

- Where national standards exist for connections, fittings, and hardware, these should be adopted by all jurisdictions.
- When possible, combine orders for standardized equipment.
- When possible, make collective bulk orders to help ensure both best price and interoperability.

Tell the group that interoperability is also a major issue with communications equipment. While matching hardware may not be necessary in all cases, those who use 800 or 900 MHz systems may discover that their hardware is proprietary, making communication with cooperators not on the system more difficult.

It is important to ensure that agencies share enough frequencies to provide communication during disasters. Many States have established Statewide emergency frequencies that can be used for major mobilizations.

Explain that another major issue with communications equipment is backup power and redundancy, as well as alternative methods of communication and alert and warning systems for those emergencies which are likely to disrupt utilities.

Tell the group that consideration should be given to interoperability in SOPs where they might affect how a resource can be deployed. For example, law enforcement agencies vary in restrictions on the use of devices such as stun grenades and nonlethal weapons. Where possible, mutual-aid partners should agree on such policies. When SOPs cannot be reconciled, it is important that mutual-aid partners know the differences up front.



Visual 3.31

**Activity: Interoperability Issues**

1. Select an interoperability issue you have encountered.
2. Brainstorm potential solutions.
3. Be prepared to discuss your lists with the class.



You have 15 minutes to complete this activity.



Unit 3:  
Getting Ready

**Visual Description:** Activity: Interoperability Issues

**Instructor Notes**

**Instructions:** Follow the steps below to conduct this activity.

1. Direct the students to the activity in the Student Manual. The students should work in small groups to complete this activity.
2. Ask the groups to agree to an interoperability issue that they commonly face during a disaster or emergency and brainstorm potential ways to resolve the issue.
3. Tell the groups that they will have 15 minutes to complete this activity and that they should be prepared to discuss their responses with the class.
4. When all have finished, facilitate a group discussion around the groups' responses. Solicit additional suggestions for resolving issues from the class, and suggest solutions based on your own experience.

Answer any questions that the students have before continuing.

**Activity: Interoperability Issues****Student Manual  
Page 3-42****Interoperability Issues Worksheet**

**Instructions:** Work with your assigned small group to complete this activity. Select an Interoperability issue that you have faced during a disaster or emergency. Working with your group, brainstorm some potential solutions to the issue. You have 15 minutes to complete this activity. Be prepared to discuss your group's issue and potential solutions with the class.

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**Interoperability Issue:**

**Proposed Solutions:**



Visual 3.32

### Making Sure Everything Works

- Training
- Exercises



Unit 3:  
Getting Ready

**Visual Description:** Making Sure Everything Works

### Instructor Notes

Point out that short of actual disaster activation, the final test of all planning activities is to assess whether or not the system works under simulated conditions. This includes training and comprehensive exercises in all aspects of resource management to ensure interoperability.



Visual 3.33

## Training

- Establishes base skill levels for both tactical and management tasks
- Training may be:
  - Paper-based self-study.
  - Web based.
  - Formal classroom sessions.



Unit 3:  
Getting Ready

**Visual Description:** Training

## Instructor Notes

Tell the students that training is necessary to establish the skills base for both tactical and management tasks. The format for training depends on the skill to be learned, but may include:

- Paper-based self-study.
- Web-based.
- Formal classroom sessions.





Visual 3.34

### Discussion-Based Exercises

- Seminars
- Workshops
- Orientations
- Tabletop exercises



Unit 3:  
Getting Ready

**Visual Description:** Discussion-Based Exercises

### Instructor Notes

Tell the group that some good discussion-based exercises include:

- Seminars: Seminars are useful for introducing new programs, policies, or plans; reviewing roles and responsibilities; and laying a foundation for higher-level exercises.
- Workshops: Workshops combine aspects of training with problemsolving, and are useful for developing strategies for specific aspects of resource management.
- Orientations: Orientations are used to introduce new or revised plans, facilities, or policies.
- Tabletop exercises: Tabletop exercises test decisionmaking around plans, policies, and procedures in a low-stress environment. Tabletops are particularly useful to test MAC System coordination activities.



Visual 3.35

### Operations-Based Exercises

- Drills
- Functional exercises
- Full-scale exercises



Unit 3:  
Getting Ready

**Visual Description:** Operations-Based Exercises

### Instructor Notes

Tell the group that operations-based exercises include:

- Drills: Drills are used to practice a single emergency response, concentrate the efforts of a single agency, or provide field experience. For example, a drill might be conducted to exercise call-up procedures for activating the EOC.
- Functional exercises: Functional exercises simulate a real emergency under high-stress conditions without incurring the cost of a full-scale exercise. Functional exercises can be used to test coordination and response activities of one or several functions or agencies and can provide a foundation for full-scale exercises.
- Full-scale exercises: Full-scale exercises test a jurisdiction's total response capabilities. Full-scale exercises are developed to be as close to an actual response as possible, making use of actual equipment and facilities.

Stress that a progressive exercise program incorporates both discussion-based and operations-based exercises. Regardless of the format, the results of these efforts must be captured and recycled through the planning process to ensure that any deficiencies are addressed.



Visual 3.36

### Summary and Transition

- Resource management planning should be based on the results of a sound hazard analysis.
- Using the model presented in this unit, you can project many of your jurisdiction's needs.
- Be sure to work through interjurisdictional and interoperability issues during planning.
- Evaluate and exercise your Resource Annex to ensure that everything works as it should.

Unit 3:  
Getting Ready

**Visual Description:** Summary and Transition

### Instructor Notes

Summarize the key points from this unit by telling the group that:

- Resource management planning should be based on the results of a sound hazard analysis.
- Using the model presented in this unit, resource managers can project many of the jurisdiction's resource needs.

Stress that projecting resource needs will not ensure a smooth operation during an emergency, however. Urge the students to:

- Identify and work through any interjurisdictional and interoperability issues during the planning process.
- Evaluate and exercise the Resource Annex to ensure that everything works as it should.

Transition to the next unit by telling the group that Unit 4 will cover resource management during an incident.

**Ask if anyone has any questions before continuing.**

**Notes:**